North Carolina Dept. of Agriculture & Consumer Services • Steve Troxler, Commissioner

Pesticide Update



Structural Pest Control and Pesticides Division, www.ncagr.com/pesticide/

Vol. XXV - No. 1 Winter 2007

James Burnette Jr. Heads New Division

By Renee Woody, Certification & Training Specialist, NCDA&CS

Commissioner Steve Troxler combined the Pesticide Section with the Structural Pest Control Division to form the new Structural Pest Control and Pesticides Division (SPCAPD). Effective July 1, 2006, James W. Burnette, Jr. formerly the Administrator of the Pesticide Section, Food & Drug Protection Division, became Director of the new Division in the interest of improving public service and bringing greater operational efficiencies.

Commissioner Troxler stated, "It just makes sense to have these programs together. We can make both programs stronger and more responsive, which will benefit the public." With the formation of the new Division comes the addition of 3 new positions including an Environmental Toxicologist, which means that the Department is even better prepared to serve the citizens of NC.

When asked about the objectives for the new Division, Mr. Burnette stated, "The overall goal of the SPCAPD is to minimize and manage risks associated with the legal use of pesticides in order to: (1) protect public health, safety and welfare, (2) promote continued environmental quality, (3) improve the quality of structural pest control services and reduce fraudulent, unscrupulous activities, and (4) realize other important benefits, including consumer and worker protection. The 69 SPCAPD team mem-



bers, are major players in the Department's comprehensive Food Defense/ Agroterrorism preparedness and prevention efforts. Headquartered in the Ballentine Building and throughout the State, we look forward and are ready to serve you."

The Division's legal authority comes under the N.C. Pesticide Law of 1971 and regulations (2 NCAC 9L) adopted by the N.C. Pesticide Board, and the N.C. Structural Pest Control Act of 1955 (G.S. §106-65.22) and Structural Pest Control rules (2 NCAC 34) adopted by the N.C. Structural Pest Control Committee. The SPCAPD also continues its cooperative performance partnerships with the U.S. EPA under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the 1996 Food Quality Protection Act (FQPA), as well as with the U.S. Department of Agriculture, under the 1990 Farm Bill Private Pesticide Applicator Record Keeping Rules.

For additional information about the **Structural Pest Control & Pesticides Division**, visit our website at: www.ncagr.com/pesticide or write to us at: 1090 Mail Service Center Raleigh, NC 27699.

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Pesticide labeling requirements may change

By Lee Davis, Pesticide Product Registration, Manager, NCDA&CS

For over a decade, the U.S. Environmental Protection Agency (EPA) has been working with their counterparts in other countries, as well as other domestic agencies, on ways to better communicate chemical hazards through labeling. Currently, chemical hazard classification and labeling requirements vary from one country to another and even from one govern-

See "Labels," Page 2

EPA Rules Out Wood Preservative ACC for Residential Use

(Washington, D.C. - Jan. 8, 2007) Maintaining the highest standards in the world for pesticide safety, EPA is taking legal action to deny the registration for acid copper chromate, commonly known as ACC, for residential use.

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"The U.S. continues to set the gold standard for pesticide safety," said EPA Assistant Administrator Jim Gulliford. "Today's decision protects American families, workers and the environment." EPA's scientific review process concluded that the risks associated with residential uses of ACC outweigh the minimal benefits. The proposed residential uses of ACC would pose a cancer risk to treatment and manufacturing workers, as well as non-cancer risks to homeowners, children and contractors.

In addition, disposal of the ACC-treated wood could require that it be handled and disposed of as a hazardous waste since the wood may contain high levels of chromium. ACC contains hexavalent chromium, a known human carcinogen when inhaled and a dermal irritant and sensitizer.

Under the federal pesticide law, EPA is following the administrative process to finalize this decision.

More information: http://www.epa.gov/pesticides/factsheets/chemicals/acid_copper_chromate.htm

Contact: Jennifer Wood, (202) 564-4355 / wood.jennifer@epa.gov

Raleigh Exam Site Changing!

Beginning January 2007, pesticide applicator exams will no longer be offered at the McKimmon Center, exams will be given at the Gov. Martin Midway Building, N.C. State Fairgrounds. For additional information, contact Licensing & Certification, NCDA&CS, or visit our website at: www.ncagr.com/pesticide.

Labels from page 1 —

ment agency to another. As might be expected, these differing requirements can sometimes lead to confusion.

According to the EPA, this new system called the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) strives to provide "a common and coherent approach to defining and classifying hazards, and communicating information on labels and safety data sheets." The EPA feels that, through this system, public health and environmental protections can be improved by providing label information that is consistent in all circumstances both domestically and internationally. Under the GHS, signal words, pictograms (symbols), and hazard statements would have the same meaning in all settings. In addition, the EPA feels that the GHS would help lower market barriers by eliminating the need for multiple hazard classification systems. It is important to note that this system would apply to all chemicals (not just pesticides) and it is completely voluntary. No country or agency within a country is required to participate in the GHS. However, it appears that several U.S. agencies including the EPA, the Consumer Product Safety Commission, the Department of Transportation, and the Occupational Safety and Health Administration will support at least some components of the GHS.

One label component that is certainly familiar to those who regularly use pesticides is the signal word. For decades both professional applicators and weekend gardeners have used the three signal words, DANGER, WARNING, and CAUTION, as a guide to the relative toxicity of the pesticides they use. Under the GHS, only DANGER and WARNING would be used. Most of the CAUTION products would move to the WARNING

category, but according to the EPA, some may actually be reclassified to the DANGER category while others would no longer be required to display any signal word.

Symbols and pictures (sometimes called "pictograms") have also been used by the EPA to help warn users of specific hazards associated with pesticides. The skull and crossbones is a widely recognized pictogram that has long been linked to the most toxic pesticides used in the U.S. Under the current EPA system, this symbol is only used when the signal word "DANGER" is used in combination with the word "POISON". Under the GHS, the skull and crossbones would be used with all DANGER products. Depending on the overall toxicity of a product, some WARNING products would display a new pictogram under the GHS. An exclamation point (!) enclosed within a diamond has been recommended for use on these products. On Page 3 are the five pictograms proposed for use under the GHS. Here the diamond shaped border is green, but the GHS would require the border to be red.

Since some elements of the GHS conflict with current EPA pesticide labeling requirements, regulations would have to change prior to implementation. These changes would take time. Therefore, should the EPA decide to adopt these new labeling standards, it will likely be several years before consumers will see pesticide products labeled in accordance with the GHS guidelines.

More information on the GHS can be found on the EPA web site at: http://www.epa.gov/oppfead1/international/global-harmon.htm

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Globally Harmonized System of Classification and Labelling of Chemicals (GHS) PICTOGRAMS



SEVERE ACUTE TOXICITY



FLAMMABLE



HAZARDOUS TO THE AQUATIC ENVIRONMENT



CORROSION: SKIN, EYE OR METAL



LESS SEVERE ACUTE TOXICITY, IRRITANT

New Pesticide Surveillance Program In NC

By Sheila A. Higgins RN MPH COHN-S, NC Department of Health and Human Services Div. of Public Health

Many of us in America derive considerable beneft from the use of pesticides. Pesticides make our lives safer and more comfortable and help supply us with plentiful food and forest products. Consequently, pesticides have become commonplace in homes, schools, businesses, and especially agriculture. But while pesticide use has many benefits, it also has risks if products are not used as directed. Exposure can result in acute illness or injury, and there is increasing evidence that exposure to pesticides may cause chronic adverse health effects.

According to Carolinas Poison Center, North Carolina experiences in excess of 2,000 cases a year of pesticide poisonings, with mostly non-occupational cases reported. AAPCC (American Association of Poison Control Centers) data indicate that pesticides are among the substances most frequently involved in adult and pediatric exposures. In North Carolina, farmworkers and their families are most at risk for illness and injury from pesticide exposures. This is related to the fact that most pesticides are used in the agricultural setting and North Carolina is a prominent agricultural state, generating significant income from agriculture and using significant amounts of pesticides compared to other states. It also has large farmworker and migrant farmworker populations compared to other states. As there is often no clear distinction between the work and home environment in agriculture, family members of agricultural workers are also at increased risk of direct or indirect pesticide exposure.

Because of concerns regarding toxicity, pesticide utilization, and vulnerable populations, the N.C. Division of Public Health felt that a closer monitoring of pesticides was warranted. Funding was obtained to implement a pesticide surveillance program which began October 2006. Currently many of the other large agricultural states in the U.S. have pesticide surveillance programs, including Washington, Oregon, Texas, California, Florida and lowa. There has been no system in North Carolina that comprehensively monitored

North Carolina experiences in excess of 2,000 cases of pesticide poisonings every year.

pesticide-related illness. Instead, different agencies have been collecting pesticide exposure data for different reasons. A statewide surveillance program will enable N.C. Public Health to provide a central location for data collection, dedicate efforts to better describe the extent of the problem, and pinpoint interventions necessary to prevent over-exposure from occurring. Objectives of this surveillance program include:

- Quick detection of and response to reported cases;
- Collection of more accurate data on how often illness occurs and what populations are most affected;
- Investigation of cases to learn why poisonings happen (e.g., to identify issues with specific handling practices/pesticide products);
- Provision of advice and resources to reported cases, employers and doctors to help prevent over-exposures from recurring; and
- Sharing of the collected data with stakeholders who can impact best practices and compliance with pesticide laws, including state agencies, grower associations, policy makers and federal agencies (e.g., EPA, NIOSH).

Mandatory physician reporting is an important first step in obtaining information about pestcide illness cases. A rule was approved by the N.C. Commission for Health Services and subsequently adopted by the Rules Review Commission, effective 4/1/06. The rule asks physicians to report:

- Cases of suspected or confirmed acute pesticide-related illness or injury within 48 hours, deaths immediately (occupational and non occupational);
- Demographics and job title of affected

individual(s);

- Name of chemical (if known) and site of exposure;
- Name and address of physician or medical facility.

Physicians may call Carolinas Poison Center in lieu of Public Health to avoid duplicate reporting and cost (time and paperwork).

The reporting rule, 10A NCAC 41F.0101-.0103, can be viewed at the Office of Administrative Hearings websitewww. oah.state.nc.us. The Occupational Health Surveillance Unit, which is part of the Occupational and Environmental Epidemiology Branch, N.C. Division of Public Health, started accepting reports in January of 2007. Individuals that are concerned that they may have a pesticide-provoked illness may also submit a report. Those who wish to report may contact the Occupational Health Surveillance Program at 919-707-5940 (report forms will be available on the website (www.epi.state.nc.us/epi/ oii) OR the Carolinas Poison Center at 1-800 -222-1222. On-call 24 hours a day, they will be set up to accept reports and immediately provide advice on pesticides, pesticide poisoning, and treatment.

A pesticide surveillance program will help keep North Carolina a healthy and prosperous state. There are benefits for all concerned, including workers, farm owners and the general public. Expected outcomes include:

- A clearer picture of what's going on with pesticide exposure;
- Data that will aid in developing interventions with focus and impact;
- Useful feedback for farmers and farmworkers to help improve work practices and safety measures during pesticide use;
- Useful feedback for agencies and policy makers charged with training, education, research and enforcement; and
- An initiative that will help citizens, especially farmworkers and their families, stay healthy.

Herbicide-Resistant Weed Threatens Cotton Production

By Cam McDonald, Certification & Training Specialist, NCDA&CS

Over the last several years, cotton growers in and around North Carolina are having to work harder to maintain cotton yields. The extra work is due to a weed that can no longer be controlled by a commonly used and cost effective herbicide. The weed is Palmer amaranth, and the herbicide is glyphosate. Growers must be aware of the seriousness of this problem and take appropriate actions. Growers will need to become better-educated about new weed control options available to combat this problem.

Prior to the introduction of Roundup Ready cotton in 1997, Palmer amaranth was not resistant to glyphosate. The same technologies that greatly improved cotton production in past years may also be responsible for the current problem. Cotton growers have been reaping the benefits of advanced technology in cotton production since the 1990's, when Monsanto introduced two major breakthroughs for cotton production. Monsanto introduced BT cotton, which was genetically engineered to fight insect pests, and also introduced Roundup Ready cotton. When using Roundup Ready cotton, growers could apply glyphosate to control weeds without harming the cotton plant. But many growers used glyphosate exclusively for weed control in Roundup Ready cotton and soybeans, which lead to the development of a glyphosate resistant biotype of Palmer amaranth. This biotype was first noticed in North Carolina in the Fall of 2005, and is currently located predominantly east of US Hwy 1.

NCSU Weed Scientist, Dr. Alan York, has described Palmer amaranth, as "extremely prolific." Furthermore, Dr. York stated that if someone wanted to design a particularly nasty weed, Palmer ama-



Dr. Alan York shows a Palmer amaranth plant.

ranth would be a good model to a use. Palmer amaranth, a type of pigweed, grows 6-10 feet tall and can grow an inch a day. The weed has been confirmed in 10 counties in North Carolina, as well as 4 counties in Georgia. Palmer amaranth is also suspected to be in three other states, including Tennessee, South Carolina, and Arkansas. Weed Scientist from NCSU continue to monitor the spread of the resistant biotype, both in and around North Carolina.

Palmer amaranth has the potential to severely alter current cotton production. The weed can lead to decreased yields, increased production costs, and bring about cultural practices that will negatively impact the environment. The cost of controlling weeds in cotton production will certainly increase due to the necessity to apply additional applications with a variety of chemically different herbicides. Dr. York, referring to Palmer amaranth stated, "It is potentially the worse threat since the boll weevil."

The boll weevil devastated Southern cotton crops in the 1900's, and caused farmers to switch to alternative crops. If not controlled, Palmer amaranth my cause some cotton growers to do the same. The practice of conservation tillage, which many growers currently benefit from, may also be impacted by this herbicide-resistance problem. There have been reports from other states where the weed took over a cotton field, and the cotton crop had to be cut down.

Cotton growers should use the latest herbicide recommendations to combat glyphosate resistance in cotton production. An excellent resource for cotton growers is the publication 2007 Cotton Information; this information is available in hard copy or online. Growers should contact their local county extension office to obtain this valuable information, or search online.

Pesticide Disposal Assistance Program

- Statewide hosting of collection events
 - Special case onsite evaluation
- Household hazardous waste assistance



For a collection site near you go to: www.ncagr.com/pdap

For pesticide disposal assistance call: 919-733-7366 or 919-733-3556

North Carolina Department of Agriculture & Consumer Services

Steve Troxler. Commissioner

Label Changes for Pesticides Containing Copper

By Cam McDonald, Certification & Training Specialist, NCDA&CS

In July 2006, EPA signed the reregistration eligibility decision (RED) for copper containing pesticides. EPA conducts RED's on products that were first registered before November 1, 1984 to insure older pesticides meet current health and environmental safety standards. EPA approved the continued use of copper pesticides for residential, aquatic, and agricultural uses with several label changes.

Label changes include limits on rates, minimum intervals between applications, maximum usage per season, restrictions related to weather conditions regarding runoff, and information to minimize spray drift into water bodies. EPA considers copper non-toxic to humans, however, aquatic organisms, including fish, are very susceptible to copper toxicity. EPA is also requiring additional information concerning personal protective equipment (PPE)

and precautionary notices since some copper pesticides may be irritants to eyes and skin.

Copper containing pesticides are used in various agricultural, residential, and aquatic settings and organic agricultural production. Land uses include broadspectrum fungicides and bactericides for virtually all food and ornamental crops, while products containing copper salts are also used to control algae, aquatic weeds, mollusks and leeches in water treatment and irrigation systems.

For more detailed information concerning copper pesticides, see the article entitled, Copper pesticides approved, but limits established on rates, application frequency. Pesticide & Toxic Chemical News, August 14, 2006, Volume 34, Number 43. Or the complete EPA reregistration decision is available at http://www.epa.gov/oppsrrd1/REDs/copper_red.pdf

Obtain Your Credits Quicker, Easier, and Safer!

By Cam McDonald, Certification & Training Specialist, NCDA&CS

County Extension Agents in approximately 95% of N.C. counties are now equipped to keep track of continuing education attendance by scanning bar codes that will appear on all license and certification cards issued for 2007.

The bar code system allows the NCDA&CS to better serve private and commercial applicators throughout the State by documenting pesticide recertification credits more rapidly and reducing the potential for identity theft. The new system allows applicators to receive continuing recertification credits without having to fill out requested information or signing an attendance roster.

Bar codes on licenses and certifications are safe because no personal information is encoded on the bar codes! It eliminates the need to have personal information on display when paper rosters are used, and protects your identity. The only information encoded is the license type, and file number. Using bar codes to track recertification credits also eliminates the problem of individuals not receiving credit for training due to illegible information entered on paper rosters.

The rosters are submitted electronically to NCDA&CS allowing the Licensing & Certification Unit to update your recertification transcripts in a more timely manner. Licensed/Certified applicators can view their recertification transcripts by visiting the NCDA&CS pesticide Section website listed belowand clicking on Credit Status Search.

SO REMEMBER, BRING YOUR LICENSE/CER-TIFICATION CARD (S) WITH YOU TO EVERY TRAINING. If you have any questions contact the Licensing & Certification Unit, NCDA&CS at (919) 733-3556, or visit our website www.ncagr.com/pesticide.

North Carolina Pesticide Board Actions

At the July through October 2006 meetings of the North Carolina Pesticide Board, the following settlement agreements, including license suspensions and monetary penalties totaling \$10,700.00 were approved for alleged violations of the NC Pesticide Law of 1971. Consent to the terms of the settlement agreement does not constitute an admission of guilt to any alleged violation.

Michael L. Richmond, Shallotte, NC, for the alleged violation(s) of engaging in the business of a pesticide applicator without a license and applying pesticides without a license. Mr. Richmond agreed to pay a monetary penalty of \$450.00.

John S. Johnson, Kinston, NC for the alleged violation(s) of improperly disposing of pesticide containers in a manner that endangers man and his environment, and failure to pay renewal license fee when due and continuing to operate as an applicator, or applying pesticides without a license. Mr. Johnson agreed to pay a monetary penalty of \$750.00.

Stephen Scott Edwards, Bladenboro, NC for the alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for applying pesticides under conditions that drift from pesticide(s) particles or vapors result in adverse effect. Mr. Edwards agreed to pay a monetary penalty of \$600.00.

Jimmy W. Harris, Robersonville, NC for alleged violation(s) of engaging in the business of a pesticide applicator without a license and applying pesticides without a license. Mr. Harris agreed to pay a monetary penalty of \$600.00.

Darryl K. Tyndall, Deep Run, NC for alleged violation(s) of improperly disposing of pesticide containers in a manner that endangers man and his environment. Mr. Tyndall agreed to pay a monetary penalty of \$450.00.

Tan W. Lee, Jr., Four Oaks, NC for alleged violation(s) of providing or making available a restricted use pesticide to a noncertified private applicator. Mr. Lee agreed to pay a monetary penalty of \$700.00.

Randal D. Surles, Mt. Olive, NC for alleged violation(s) of using a restricted use pesticide in a manner inconsistent with its labeling, for making or recommending a pesticide application not in accordance with the label, and for applying a restricted use pesticide without the proper license or certification. Mr. Surles ageed to pay a monetary penalty of \$400.00.

R. Terry Ashe, Cullowhee, NC for alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for making or recommending a pesticide application not in accordance with the label. Mr. Ashe agreed to pay a monetary penalty of \$450.00.

Lewis K. Eller, Greensboro, NC for alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for making or recommending a pesticide application not in accordance with the label. Mr. Eller agreed to pay a monetary penalty of \$600.00.

John E. Jackson, Sanford, NC for alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and applying restricted use pesticides without the proper license or certification. Mr. Jackson agreed to pay a monetary penalty of \$400.00.

Donald G. Thomas, Sanford, NC for alleged violation(s) of providing or making a restricted use pesticide available to a non-certified private applicator. Mr. Thomas agreed to pay a monetary penalty of \$750.00.

David A. Sherrill, Ellerbe, NC for alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and for making or recommending a pesticide

application not in accordance with the label. Mr. Sherrill agreed to pay a monetary penalty of \$500.00.

Phillip D. McKinney, Sanford, NC for alleged violation(s) of using a pesticide in a manner inconsistent with its labeling and failing to provide proper protective equipment as required by the Worker Protection Standard. Mr. McKinney agreed to pay a monetary penalty of \$900.00.

Jay Steven Lancaster, Pikeville, NC for alleged violation(s) of improperly disposing of pesticide containers in a manner that endangers man and his environment. Mr. Lancaster agreed to pay a monetary penalty of \$750.00.

Leonard G. Small, Edenton, NC for alleged violation(s) of providing or making available a restricted use pesticide to a non-certified applicator. Mr. Small agreed to pay a monetary penalty of \$700.00.

Sean M. Tunney, Edenton, NC for alleged violation(s) of using a pesticide in a manner inconsistent with its labeling, making or recommending a pesticide application not in accordance with the label, and for engaging in the business of a pesticide applicator without a license and applying pesticides without a license. Mr. Tunney agreed to pay a monetary penalty of \$1,400.00.

Benton Eubanks, Beaufort, NC for alleged violation(s) of engaging in the business of a pesticide applicator without a license and applying pesticides without a license. Mr. Eubanks agreed to pay a monetary penalty of \$300.00.



"Spray it Safe"

Remember: Always inform your employees before you spray ... It's the law!

Agricultural employers are required by the Worker Protection Standard to inform their employees of areas to be treated or where pesticides have been recently applied. "Workers must be notified of the application by warning them orally or by posting warning signs at the entrances to the treated areas." Notification requirements are found on the pesticide label under "Agricultural Use Requirements."

For More Information

Pesticide schools and materials for certification and recertification:

CONTACT: Dr. Wayne Buhler, Dept. of Horticultural Science, Box 7609, NCSU, Raleigh, NC 27695. Phone (919) 515-3113

Certification, licensing, and recertification credits or testing:

CONTACT: Pesticide Section, NCDA&CS, 1090 Mail Service Center, Raleigh, NC 27699-1090. Phone (919) 733-3556

Private applicator recertification classes:

CONTACT: Pesticide Section Homepage www.ncagr.com/pesticide

Commercial applicator and dealer recertification classes:

CONTACT: Pesticide Section Homepage www.ncagr.com/pesticide

Pesticide container recycling:

CONTACT: Henry Wade, Pesticide Section, NCDA&CS,1090 Mail Service Center, Raleigh, NC 27699-1090. Phone (919) 733-3556

Pesticide waste disposal:

CONTACT: Derrick Bell, Stuctural Pest and Pesticide Division, NCDA&CS, 1090 Mail Service Center, Raleigh, NC 27699-1090. Phone (919) 733-7366 or (919) 715-9023.

Pesticide Section

North Carolina Department of Agriculture & Consumer Services Structural Pest Contol and Pesticides Division 1090 Mail Service Center Raleigh, NC 27699-1090 (919) 733-3556 FAX (919) 733-9796

http://www.ncagr.com/pesticide

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